

REMARKS

Claim 1 has been amended to provide consistency between claim terms without narrowing its scope. No new matter has been added. Claims 1-11 are pending.

Rejection under 35 U.S.C. § 102

Claims 1-11 stand rejected under 35 U.S.C. § 102(a)(e) as being anticipated by U.S. Patent Application Publication 2003/0044869 to Miyazaki et al. ("Miyazaki"). Applicants respectfully traverse this rejection for at least the following reasons.

Independent claim 1 recites "an offset detecting section . . . to reserve an output of the current sensor, as an offset quantity when the non-discharge/charge current state is detected" and "a correcting section to correct a sensed value of the discharge/charge current sensed by the current sensor, in accordance with the offset quantity reserved by the offset detecting section." In claim 1, the correcting section corrects a sensed value of the discharge/charge current sensed by the current sensor, in accordance with the offset quantity reserved (from an output of the current sensor) by the offset detecting section. Thus the correcting section in claim 1 is directed to an offset correction of current. This feature is neither disclosed nor suggested by Miyazaki.

In contrast to claim 1, the offset compensation disclosed in Miyazaki is directed to compensating an adjustment voltage, not current sensed by a current sensor. Specifically, Miyazaki discloses in paragraph [0121]:

Here, the compensation by the first counter 9 according to the compensation terminals A1, . . . , A3 is to compensate the voltage value of the capacitor C_i which is determined depending on the values of the constant current i and the capacitor C_i and corresponds to the gain compensation. Compensation of the second counter 10 by the compensation terminals B1, B2 is to compensate the adjustment voltage which is output of the amplifier 15 and corresponds to the offset compensation. (emphasis added).

Miyazaki is concerned with the problem of the accuracy in detecting a voltage (see paragraph [0009]), not with problems concerning the current detected by a current sensor. Miyazaki, failing to disclose all the features of independent claim 1, fails to anticipate claim 1.

Moreover, the adjustment voltage (Voffset) of Miyazaki is the voltage when the battery's remaining capacity is 0% or less (See paragraph [0018]). Thus, the adjustment voltage (Voffset) is not a value to be measured by the voltage measurement. Therefore, the adjustment voltage of Miyazaki is not a sensed value sensed by a sensor, but merely a voltage designed to prevent the value not to be measured from being measured. Moreover, the offset compensation of Miyazaki is a correction of the value of the adjustment voltage. Miyazaki is silent about compensation for sensor detection error (offset error), in contrast to the presently claimed invention of claim 1.

Independent claims 10 and 11 respectively recite “means for storing, as an offset quantity, an output of the current sensor obtained when the non-discharge/charge-current state is detected; and means for correcting a sensed value of the discharge/charge current sensed by the current sensor, in accordance with the offset quantity”, and “reserving, as an offset quantity, a sensed value of a discharge/charge current when the non-discharge/charge-current state is present; and determining a corrected current value by subtracting the offset quantity from the sensed value of the discharge/charge current”, and are thus patentable for reasons analogous to independent claim 1.

The dependent claims are patentable for at least the same reasons as their respective independent claims, as well as for further patentable features recited therein.

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to

charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date June 22, 2006

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